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Veterinary Education In Mexico

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Growth of National School of Veterinary Medicine

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THE National School of Veterinary Medicine, which is included among our old educational centers, was established in 1853, and at that time was annexed to the National School of Agriculture. It was not until 1916, or 63 years later, that it became independent, and began to develop a great cultural and spiritual program, to grow, and to change its courses to produce the best type of professional men to meet the increasing needs of the people.

At the time of the school's independence the type of farming was changing and many large farms, called "haciendas" were divided into smaller areas, "ranchos." The size of the latter depended upon the population of nearby towns, type of soil, and cultivation, resulting in each farmer having sufficient land so that he could cultivate it without outside help.

Some of the "haciendas" are still very large. One of them is the Terrazas' Hacienda in northern Mexico, which includes most of the State of Chihuahua (the area of this state is somewhat larger than the Spanish Republic). It is said that the owner enjoys selling his cattle in lots of 10,000 head, all the same sex, the same age or the same color.

Farm System Changed

Of course, the change from a system of large land holdings to that of the new small farm system (agrarismo) also brought about changes in the methods of cultivation and animal husbandry. This resulted in increased profit to more people working with small flocks. With the disappearance of the old feudal system, the new small farmers needed help, especially from veterinarians, in breeding and disease control.

The school continued working under the supervision of the Department of Agriculture until 1929, when it was incorporated in the National University of Mexico. Today its own large building is located in San Jacinto, D. F., four miles west of the downtown area of Mexico City and in the zone occupied by the Annual Exposition of Domestic Animals, agriculture and agencies connected with both activities.

Complete Facilities

The building was erected in 1922 and remodelled in 1937. It now contains large laboratories for histology, bacteriology, parasitology, physiology and chemistry; a special classroom for zootechnics; an amphitheater for dissection; a surgery hall, pharmacy, clinic, auditorium, and classrooms for general use. The rooms occupy two stories extending around three gardens and two large "patios." The school also has stables and dog kennels in which to keep clinical cases and experimental animals. The building is larger than is now needed for the 100 to 150 students, which has been the average attendance per year for the last 10 years.

As our schools differ from those in the United States, the following terms are translated literally for comparison. Prior to entering the School of Veterinary Medicine, the students have attended kindergarten, six years in primary school and three years in secondary school. This education is mandatory for all citizens and

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is free, being given by official schools or those recognized by the government or the National University.

After attending secondary school, the students go for two years to a preparatory school, where they acquire the degree of Bachelor of Veterinary Medicine. In this school the annual fee for veterinary students is 100 pesos ($20.00). Those students with highest scholarship get fellowships from the National University, from the professors of the same school or from the state governments. As the building is large, many have free living quarters. The students have their own alumni society, which is common to all our schools. Those students having no families in Mexico City join in with others to form a cooperative directed by themselves, so that they may have good low priced food. Their expenses are about 11 pesos ($2.20) per month and their fees in the university are among the lowest, for the profession neglects its propaganda and is not well understood in the country as a whole.

Annual Courses

Teaching is done by annual courses, given from February 15 to October 30. During November and until December 18, final examinations are given. There is a spring vacation of 10 days during Holy Week, and an autumn vacation in September, also of 10 days. Some eight or ten courses are semestral; that is, two courses in a year with the final examinations in June and November. There is a total of fifty courses of three hours per week, if in theory, and three to five hours per week if in laboratory, distributed over a period of five years.

I will try to mention the courses in the order they are given, but due to lack of official information there may be some omissions or errors. The courses are descriptive anatomy, descriptive anatomy dissections, histology and elemental embryology, histology and embryology laboratory, biological chemistry, biological chemistry laboratory, general physiology, general physiology laboratory, rural economy, equitation, bacteriology, bacteriology laboratory, parasitology, parasitology laboratory, animal building construction, topographic anatomy, special physiology, special physiology laboratory, histopathology and pathological anatomy, necropsis and histopathology practices, industrial freezing, slaughter-houses and meat industry, and immunology.

Other Courses

Other courses which are included in the curriculum are: medico-surgical propedeutics, technique and inspection of animal origin products, medical pathology (1st course), surgical pathology (1st course), genetics and general zootechnics, zooculture (1st course), specification of animal origin products, pharmacology and medical therapeutics, medical pathology (2nd course), surgical pathology (2nd course), zooculture (2nd course), surgical techniques, surgical clinic, medical clinic, bromatology and feeding, special zootechnics, zootechnical expert, veterinary hygiene, medical therapeutic clinic, surgical therapeutics, sanitary police and veterinary legisdation, and general pathology.

To complete their professional education and to add to their culture, we provide for the students at least two extensive trips; one to important places in Mexico, and the other to certain laboratories, slaughter houses, schools and clinics in the United States. Finally, in order to qualify for a diploma, professional examinations are given in three categories. First is the presentation of a thesis written under the direction of a professor; second, is an examination in theory; and third, is a practical examination.

Work With Government

Veterinarians begin work immediately (sometimes several years before being licensed) with the government in the Public Health Department, the Agriculture Department, or in the Army. As the number of veterinarians in Mexico is very small (about 220), there are many holding two positions at the same time. The State Governments also have similar positions in their particular areas. Some veterinarians do most of their work at stock farms. Very few own animal hospitals, and those

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it in the flank or side with their snouts. In support of the supposition that the swine in Lot 1 may have been carriers of the infection and transmitted it to the cattle is the nonexistence of any fatalities occurring among the cattle in Lot 2, to which the pigs did not have access. In addition, following the removal of the pigs from the cattle pen, no more fatalities have been reported on the farm.

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that do maintain them merely as a sideline.

With this education we feel that the veterinarian can help the government advance the livestock industry by teaching farmers to avoid and control disease in their flocks and herds, and improve the breeding of domestic animals. In general, we hope to accomplish the noble and sincere labor of the veterinarian the world over, that of increasing comfort to both animal and man by the avoidance of disease and by supplying wholesome animal foods and products of animal origin for the use of humanity.

SERUM VIRUS PRODUCTION

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bleeding process, defibrinating of the blood, clarifying and pasteurizing of serum, the mixing, phenolization and bottling of both products to the final step of testing, are long and complex.

Virus

Briefly, simultaneous virus as it is used in conjunction with anti-hog-cholera serum is phenolized, defibrinated whole blood (i. e., blood with fibrin removed) obtained from inoculated cholera sick pigs which weigh between 40 to 110 pounds. Before bleeding, these animals are observed clinically for symptoms of hog-cholera. Rectal temperatures must reveal a pronounced elevation. Bleeding is done by way of the throat using an aseptic surgical technic. The carcass of the virus pig is then observed officially for lesions indicative of hog-cholera. Bleedings from pigs which pass official inspection are defibrinated to remove the fibrin which has formed in the sterile collecting vessel. After sufficient blood has been pooled to make a representative mix or serial, 5 percent phenol is added, quantity sufficient to make a final dilution of .5 percent. After the product is bottled it is held under government lock and key until it has passed all official tests. Not until it is proved that the product is pure and potent is it released for marketing.

Serum

Anti-hog-cholera serum, as it is known in commerce, is the defibrinated, clarified (i.e. red cells removed), pasteurized and phenolized blood from hogs hyperimmunized against hog-cholera. Before a hog can be brought into the production of anti-hog-cholera serum, it must first be immunized against hog-cholera by the simultaneous method for at least 90 days. After this time the animal is admitted to the plant and observed to make sure that it is free from all other swine diseases. The hyper-immunization process, which has already been referred to, consists of an intravenous injection through an ear